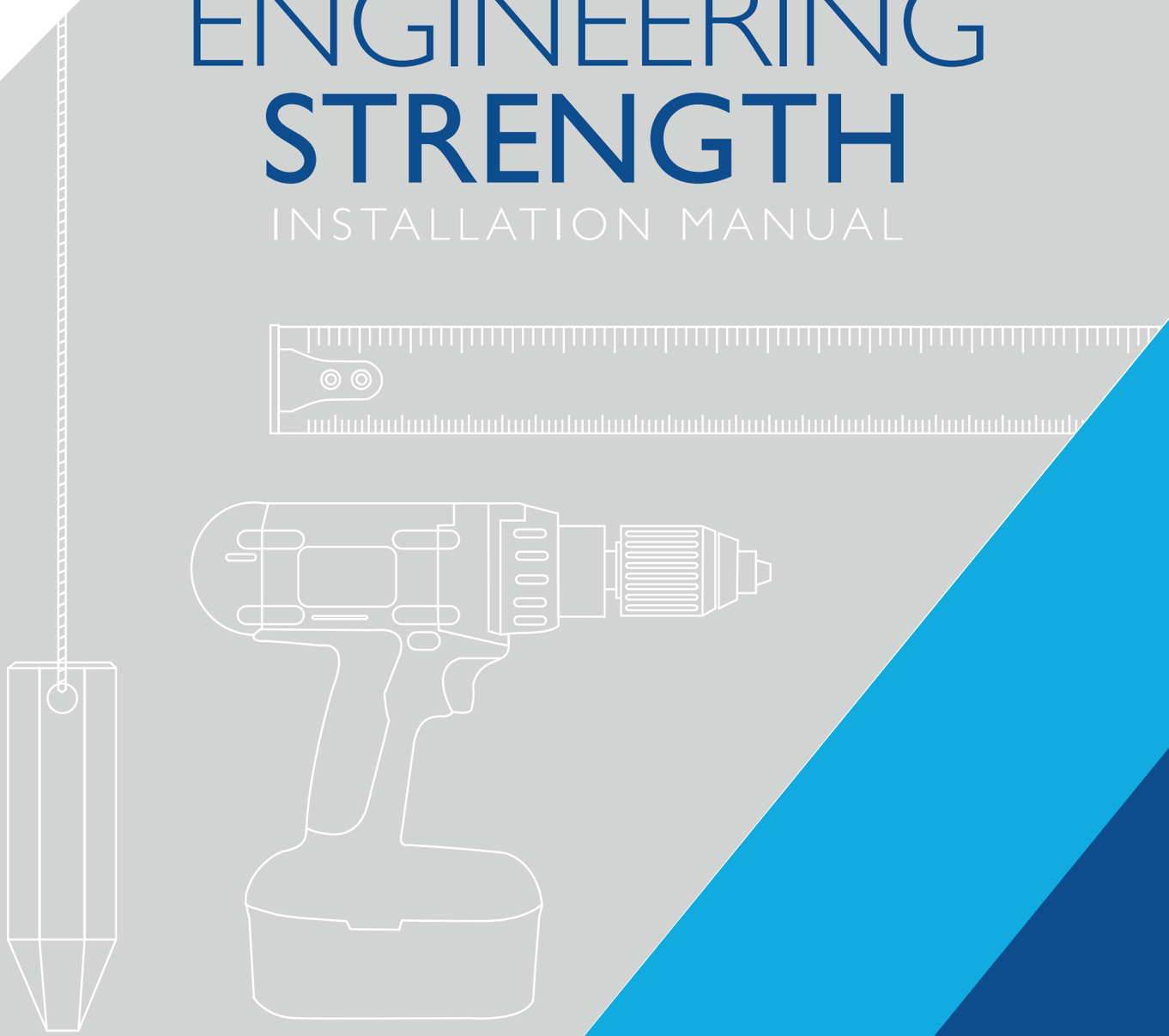
Rooflight Superstore

ENGINEERING STRENGTH

INSTALLATION MANUAL



RAFTER PREPERATION

STEP 1

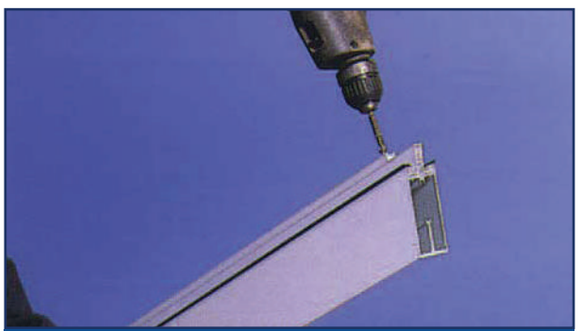
Open boxes, remove all main frame components and lay out arranging rafters in numerical order.

N.B. Care should be taken to avoid damaging or scratching components.

Choose an area of soft ground or use packaging materials.

STEP 2

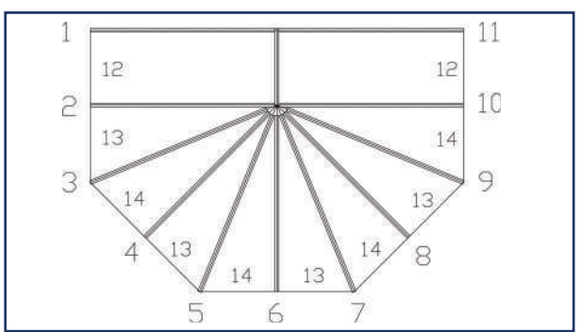
Take aluminium bracket and insert into each rafter and ensure that it slides freely.



STEP 3

Check screw is located at the top of rafters but do not screw fully home, allow hook brackets to slide in.

N.B. This will be convenient later in the assembly process.



STEP 4

Find conservatory roof drawing in box, and note the numbers and positions of all components ie. Rafters, Ridge, Ringbeams.

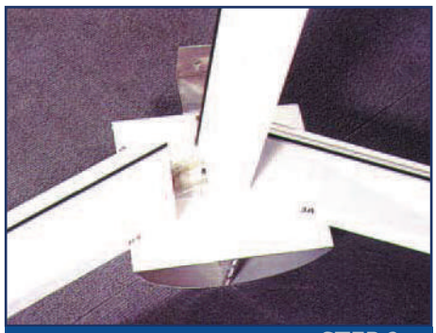
Components that are the same size will have the same number allocated to them. The locations will be shown on the plan drawing.

‘A’ FRAME PREPERATION AND ASSEMBLY

STEP 1

Take ridge bar and connect to fan assembly, slide bracket into the ridge and hook into the pre-routed slot at the back of the fan assembly. Tighten ridge bracket screw to secure in place.

Take ‘tie bar’ rafters, checking numbers to ensure correct positioning and connect as shown in step 2.



STEP 2

‘tie bar’ rafters have pre-cut slots on the inner face to receive tie bar, and a single hole at top end to screw to fan.

It is easier to connect them with ridge in upright position as shown. Ensure that numbers on rafters correspond with numbers on drawing.

STEP 3

Secure rafter to ridge bracket using 38mm screw as shown.

STEP 4

Fit tie bar into slots in underside of rafters and screw through pre-drilled hole in bottom of tie bar.

Remember to fit seat and caps to screws. Screw length 50mm

Use 45mm bolts with caps through the bar/rafter bracket.

STEP 5

Using 11/64” metal bit, drill through pre-drilled hole at top of rafter into back of fan assembly.

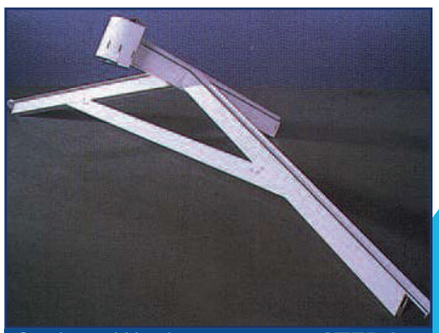
Secure using 70mm screw. Repeat on other rafter.

STEP 6

Completed ‘A’ frame should be set aside until ring beam assembly is complete.

STEP 7

When a conservatory has a cantilevered hood the rafters are connected in much the same manner, however it may be necessary to support the ridge on trestles during assembly.



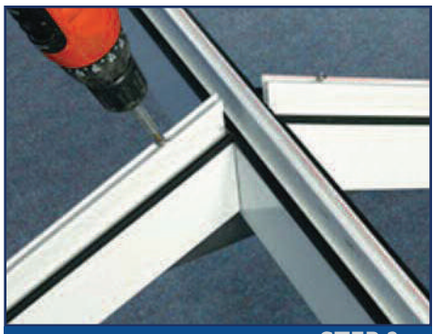
Cantilevered Hood STEP 8

ALTERNATIVE TIE BAR DESIGNS

Lazer Tie Bar (Hidden)

STEP 1

Slide steel lazer bracket into slotted rafter and locate onto ridge bracket.


STEP 2

Proceed to slide other slotted rafter over lazer bracket and ridge bracket. Fix with top screw as normal.

STEP 3

Slide aluminium gusset triangle over steel lazer bracket.

STEP 4

Fix gusset from the underside with screws and cap.

Rod Tie Bar

Clip 2no L shaped cleats simultaneously into the slots provided in the rafters .

STEP 1

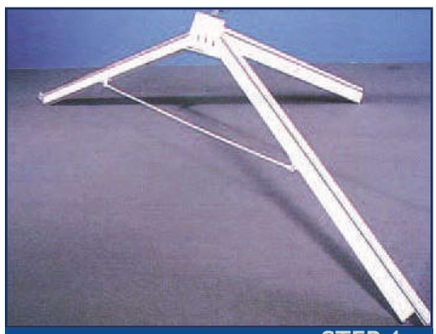
Slide tie bar end fixing over the located cleats and fix bolt.

STEP 2

Tighten nut onto bolt and finish with bolt caps.

STEP 3

Tie bar is completed with mild steel threaded bar and PVC tubular cover.


STEP 4

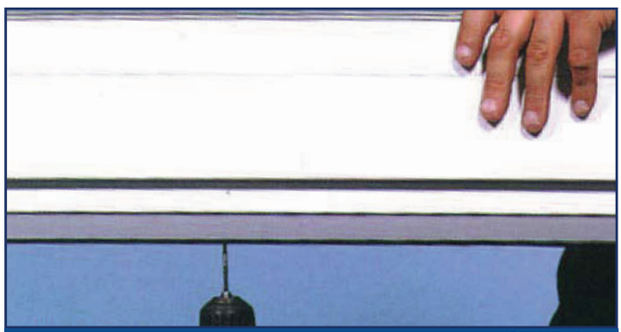
RING BEAM

STEP 1

Locate corner ringbeam bracket into adjoining ringbeam.

STEP 2

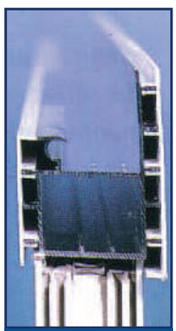
External Corner - Brackets come attached to ring beam. Locate bracket and screw together through pre-drilled holes using 50mm screws.



STEP 3

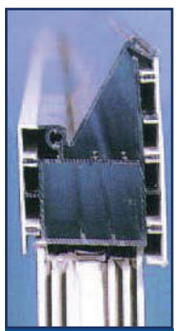
Fix ring beam to wall panels by drilling from underside and screwing upwards.

Again it is useful to tape ring beam and frames together before drilling



STEP 4

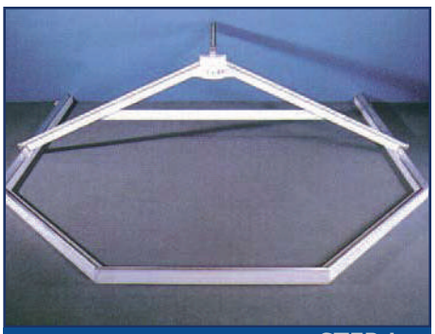
STEP 5



STEP 6

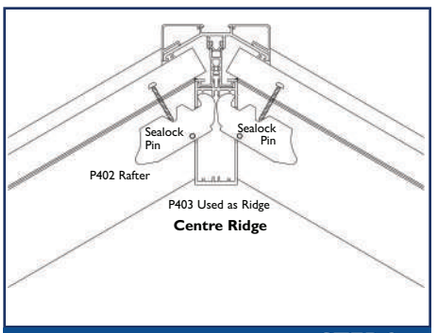
Install adjustable ring beam plate as shown

RAFTER ASSEMBLY



STEP 1

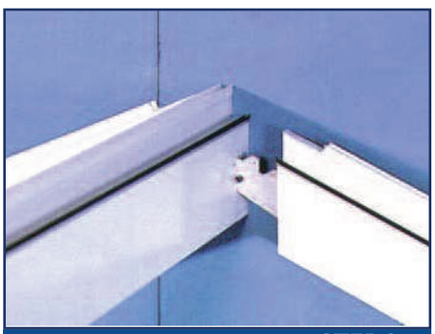
Lift completed 'A' frame onto ring beam and prop ridge against host wall.



STEP 2

Fit brackets into slots in ridge (pre-cut), slide rafter onto bracket and tighten screw through pre-drilled hole in rafter, locating into angled section bracket.

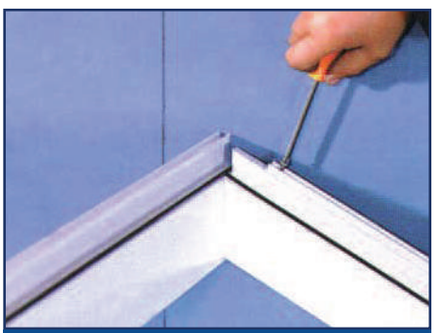
Tightening the screw will pull the rafter tight.



STEP 3

TOP BRACKET: Hook bracket into pre-cut slot in ridge (or fan assembly) slide rafter onto bracket and place screw through pre-drilled hole in rafter locating into angled section of bracket.

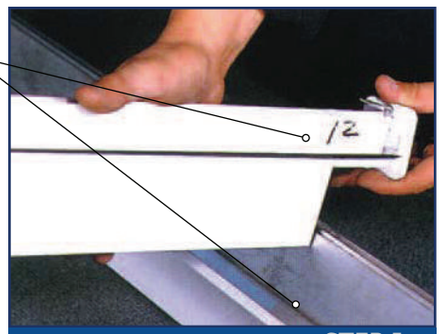
No bracket is required for the bottom



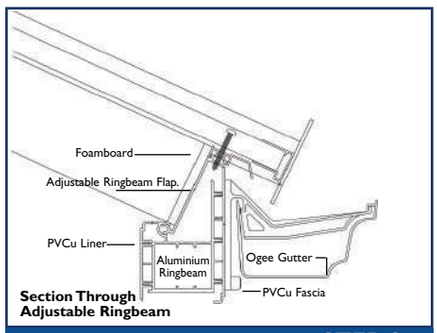
STEP 4

Screw to tighten rafter. (38mm ss.)

Slide rafter onto adjustable ringbeam

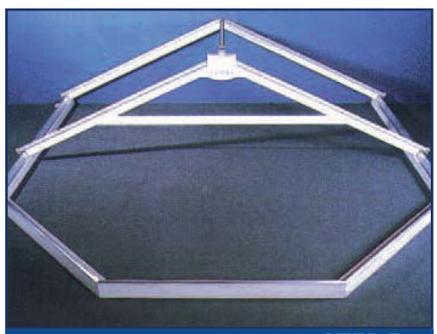


STEP 5



STEP 6

Ring beam with 'A' - Frame and host wall rafters fitted.



STEP 7

Add all rafters

STEP 8

RAFTER ASSEMBLY

STEP 9

Rafter fixed to adjustable aluminium flap with 50mm s.s. screw.

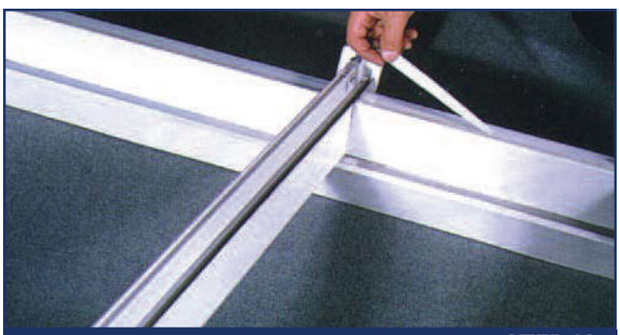
Tip: Loosely fitting foam board internal liners can help locate rafters into the correct position before screwing.

STEP 10

Fit double sided tape holder (P.V.C.) to adjustable flap of ring beam.

STEP 11

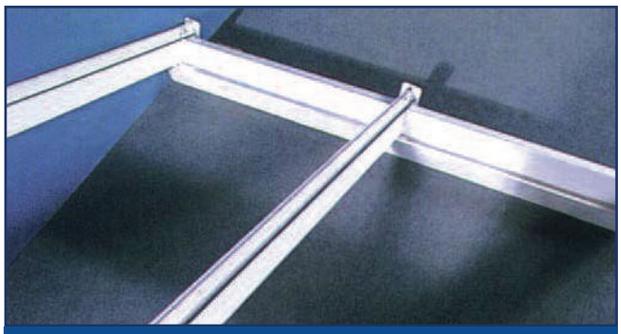
Fix foam P.V.C. inner liner board to adjustable flap with silicone (use sparingly).



STEP 12

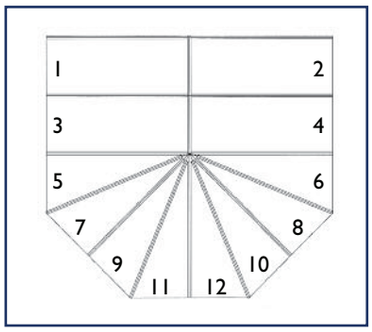
Remove protective cover from double sided tape.

GLAZING



STEP 1

Start glazing from left hand side and continue glazing opposite sides as shown.



STEP 2

Toughened double glazed unit or polycarbonate is set onto ringbeam first and then dropped into the top.
(As illustrated)

STEP 3

PVCu Caps

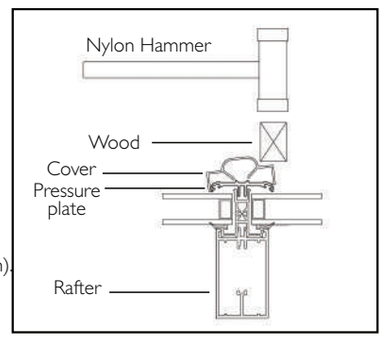
Snap caps onto rafter thermal break and tap firmly into place

Aluminium Caps

Screw down pressure plates

Locate one side of cover cap and tap other side with a nylon hammer

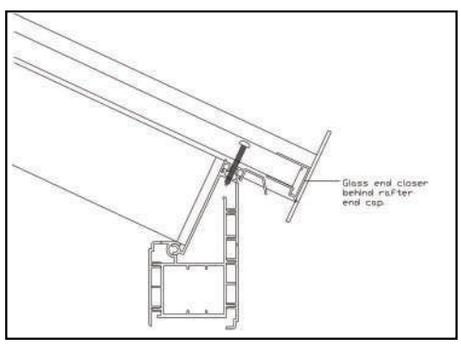
(Tip: use a block of wood as shown).



STEP 4

Fit end closer to bottom of glazing.

NOTE: Always slide end closer behind rafter end caps.



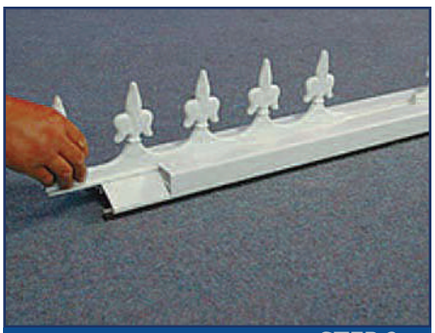
TIP - Keep end closer behind rafter cap.

FINIAL AND CRESTING

STEP 1

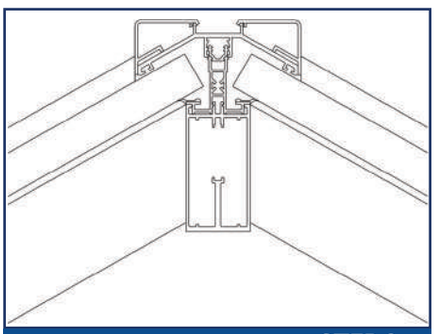
Remainder of work at ridge, etc. will be from top of glazed roof. Roof bars will support a person but care should be taken. Spread weight across rafters and wear soft soled shoes to avoid damage to glazing material.

Seal around front fan assembly with silicone.



STEP 2

Slide cresting modules into place.



STEP 3

Diagram showing ridge cap in position.

STEP 4

Place the cresting channel onto ridge, and tap firmly into place.

Before fitting hood cover, seal end of channel against fan assembly.

STEP 5

Seal ridge channel at host wall as at fan assembly.

Also seal along host wall rafter for secondary weather proofing below flashing.

STEP 6

Fit hood over threaded upstand.

Cut slots into gasket around rafters and remove any excess rubber from surface of rafter cappings.

STEP 7

Screw finial onto threaded upstand and tighten.

STEP 8

VALLEY ASSEMBLY

1. Do Not Remove Timber Inserts Until Glazing Commences
2. Do Not Remove Valley Rubber From Clip Connectors"

STEP 1

Ensuring the first ridge is level, fit the lean to ridge against the host wall.

Secure ridge to host wall using 100mm x 10mm Fischer bolts, min 1no per bay.

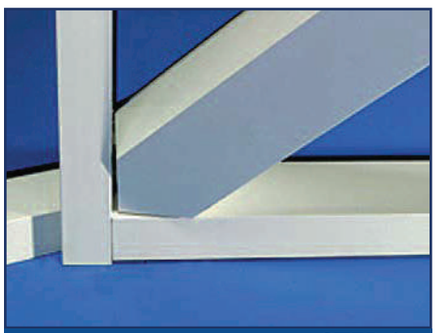
STEP 2

The 2no ridges when fitted together will form the top of the valley.

Locate 2no brackets in the slots provided.

STEP 3

Lift the valley rafter into position by locating the brackets inside the main valley rafter.



STEP 4

Push the valley rafter slowly over the brackets until it is tight into the top corner. If necessary trim with flat PVC.

.

Fix the bottom valley cap unto the ringbeam shelf making sure the valley is in the correct position.

STEP 5

Slide the valley rafter over the bottom cap and tap down gently.

STEP 6

Fix through the side of the main valley rafter into the legs of the bottom cap.

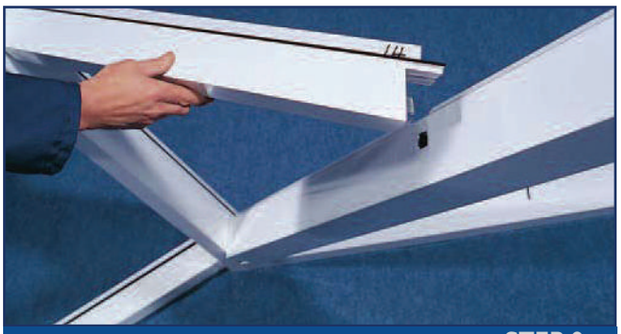
STEP 7

Trim sides of connected valley rafter with PVC foamboard.

.

STEP 8

VALLEY ASSEMBLY

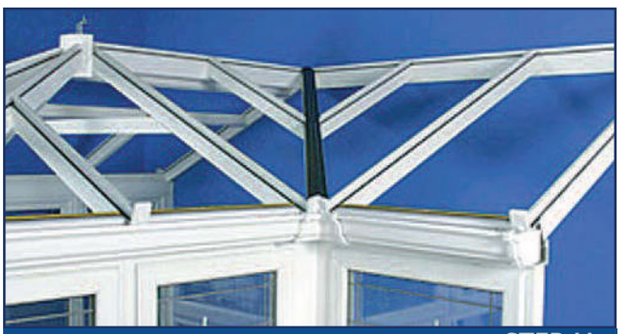


STEP 9

Starting at the top of the valley fit jack rafter into ridge as normal and locate bottom bracket (already attached) into slots on valley rafter.

STEP 10

When jack rafter is in position bore hole with 1/8" bit and secure with a 25mm screw and cap.
Repeat on other jack rafters.



STEP 11

When all jack rafters are in position then glazing can commence.

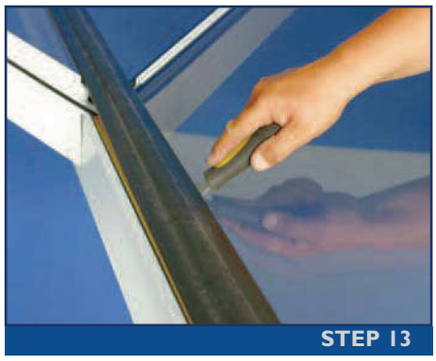
Remove timber inserts from valley glazing cap. Do not push cap down until glazing is complete.

STEP 12

Locate glazing into valley and slide down under rubber/PVC valley cap.

TIP: It is useful to use a scraper to prise the valley cap up.

VALLEY ASSEMBLY & GLAZING



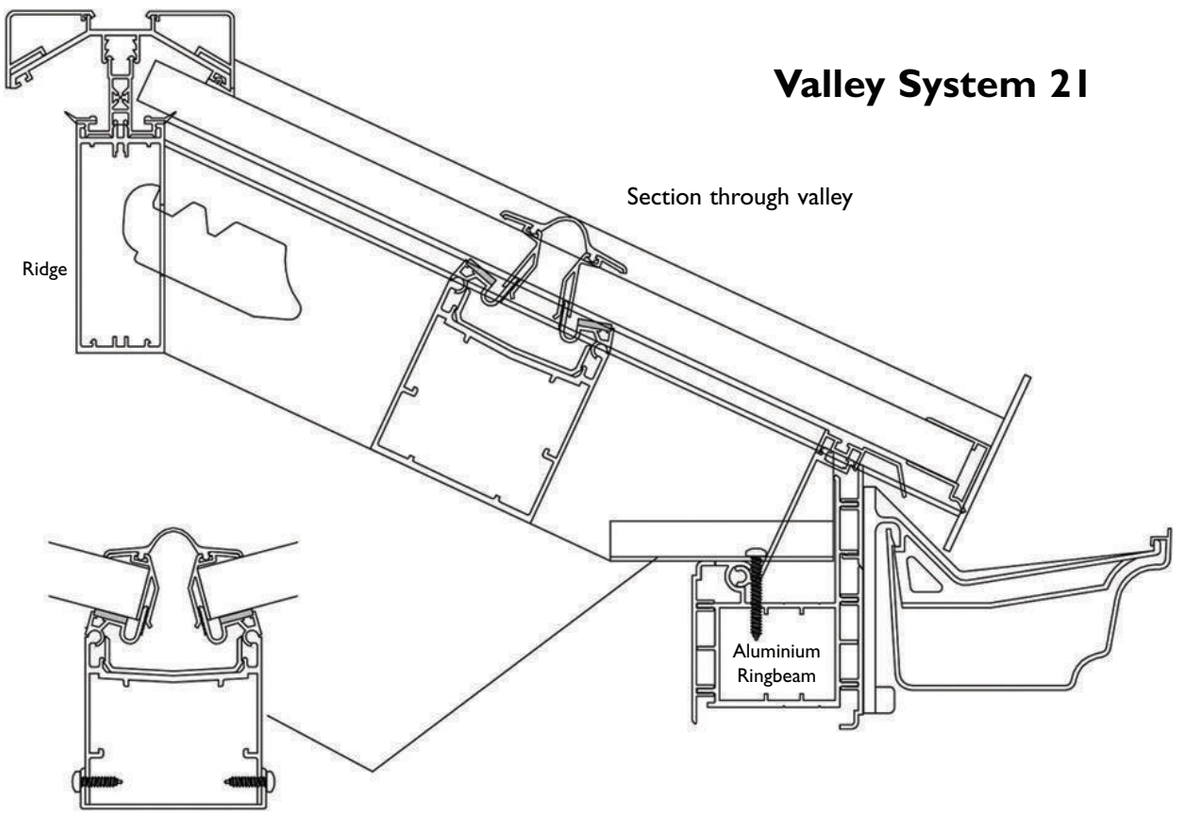
STEP 13

Continue to glaze the rest of the valley.

When all the glazing is fitted into the valley and the valley cap is pushed down tight, fit the jack rafter cover caps.

STEP 14

Valley System 21



Section at eaves junction.

HIP ASSEMBLY

STEP 1

Hook hip bracket into fan assembly or screw fix on mark II ridge.

Screw fix into ringbeam flap at bottom through PVC

STEP 2

Locate top of JACK RAFTER with factory fitted bracket attached into slot on long hip rafter

STEP 3

Drill hole through hip rafter with 1/8" metal bit (widening hole in the JACK RAFTER will achieve a better 'pull' when screwing into long hip rafters).

STEP 4

Ensure bottom of rafters are tight to inside of ring beam and screw jack rafter to hip rafter with 38mm screws.

Rafter should now be fitted as shown.

STEP 5

All the main components are now in position and secure.

Proceed to glaze. (see page 8)

STEP 6

Mark and cut PVC and trim tops of glazing sheets on outside and inside.

Silicone PVC into place and seal around cover caps and front of fan assembly.

STEP 7

Due to the angle of the HIP corner more pressure is needed to secure cover caps.

STEP 8

GUTTER

STEP 1

Fix gutter bracket to the side of the roof rafters, not underneath using 25mm screws.

STEP 2

Fix external corner gutter brackets to suit the gutter angle connector.

STEP 3

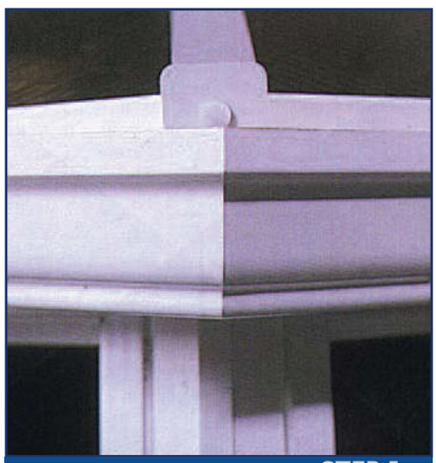
Fix internal corner gutter brackets to suit the gutter angle connector.

Gutter brackets can be fitted during ring beam preparation.

Hang OGEE GUTTER on bracket as shown and swing into position.

STEP 4

Having snapped gutter into position fit corner sections provided, following manufacturers instructions where necessary

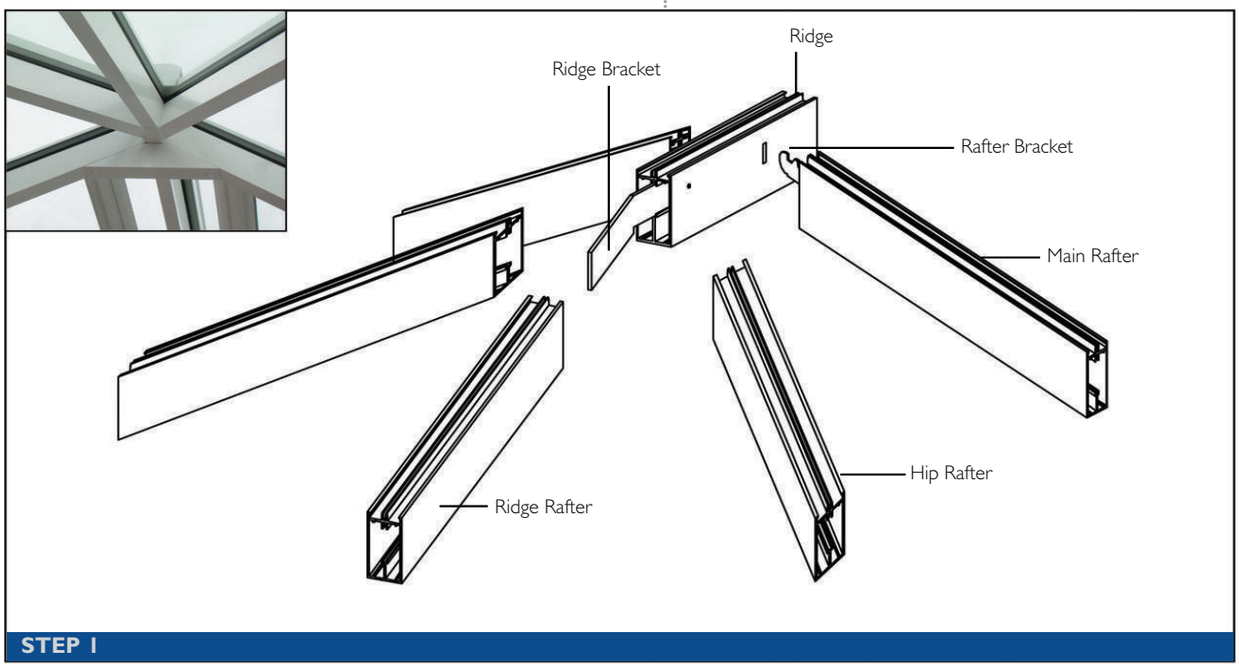


STEP 5

Gutter angles may be fitted to ringbeams before they are fitted on top of the wall panels.

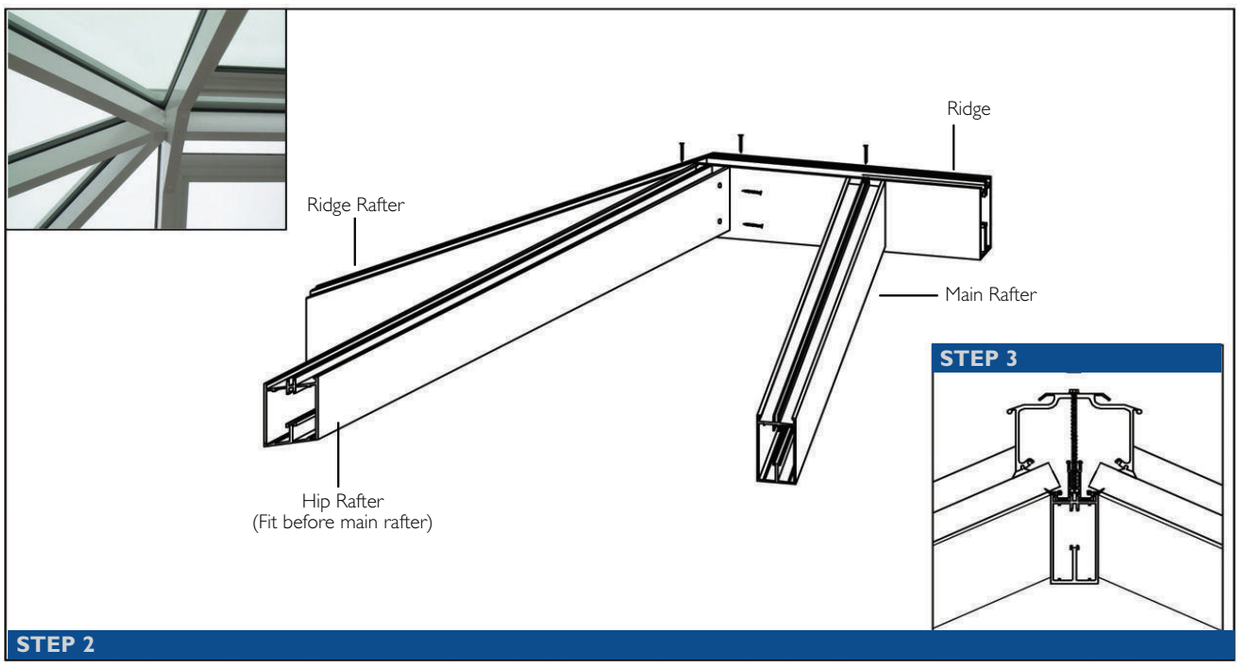
TIP

MARK II RIDGE ASSEMBLY



STEP 1

Ridge rafter slots over ridge bracket and is fixed into place from above with the screws provided. Note: where there is no ridge rafter in the design the end of the ridge is capped with a flat cover.

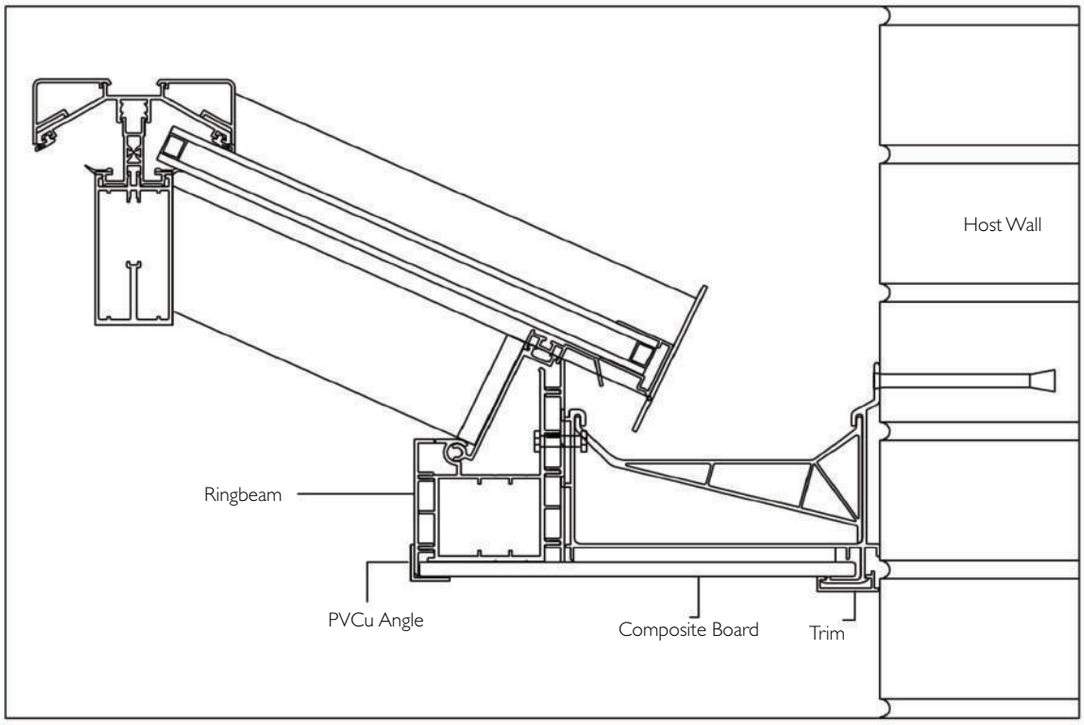


STEP 2

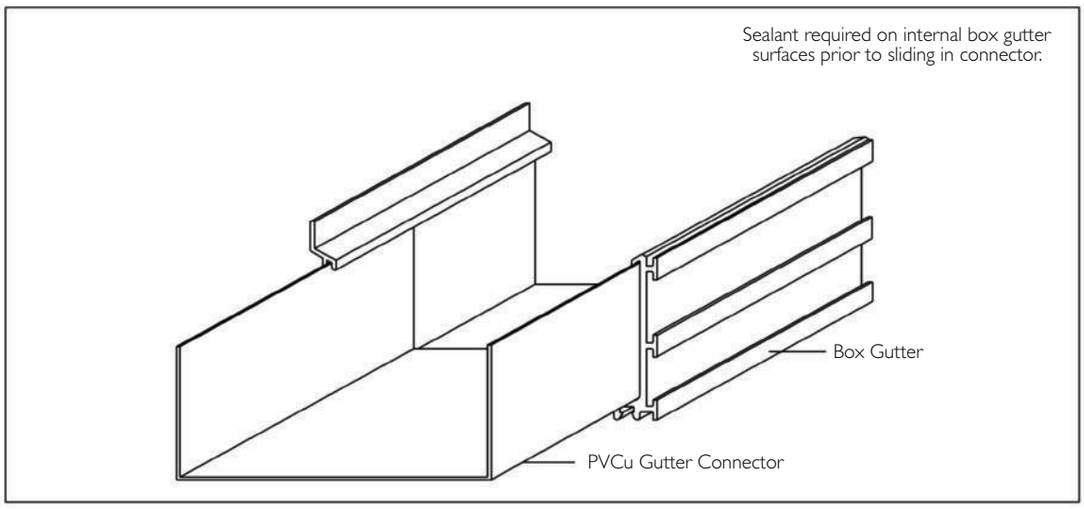
Stitch hip rafter into side of ridge using 2 no screws and cap with dome caps provided. Then fix main rafters into slots provided (See rafter assembly section).

Screw mark II ridge cover into main ridge bar and cap with dome caps.

BOX GUTTER



The standard box gutter section will be supplied connected to the eaves beam. On one offs if joining is required this should be completed before the box gutter is installed.
The internal box gutter supports should be positioned at approx 500mm centres.
The box gutter should be positioned on top of the window frames and fixed to the host wall at maximum 500mm centres with propriety fixings.
The box gutter is cladded underneath with composite cladding board. Firstly push composite board to the underside of the box gutter nearest the wall Trim the junction between the ringbeam and composite board with PVCu angle trim.



Apply two lines of box gutter sealant on all three surfaces of the box gutter and then slide the connector fully into place.

Apply sealant provided at the joint between the box gutter and the connector. Allow sealant to set prior to attaching the main Ogee gutter.